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June 15, 2007

Winston Hickox, Chair, Market Advisory Committee
California EPA Headquarters
1001 I Street
Sacramento, California 95814

Larry Goulder, Vice Chair, Market Advisory Committee
California EPA Headquarters
1001 I Street
Sacramento, California 95814

RE: **Calpine Corporation's Comments on June 1, 2007 Draft Report: Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California**

Dear Chair Hickox and Vice-Chair Goulder:

The Calpine Corporation is pleased to offer comments on the Market Advisory Committee's June 2007 Draft Report entitled "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California" ("Recommendations Report"). Calpine thanks the committee for the opportunity to comment both at the public meeting on June 12 and through these written comments submitted June 15, 2007.

Calpine is committed to powering California and the nation with clean, reliable and affordable electricity from low-carbon and renewable energy resources. Calpine owns and operates approximately 25,000 megawatts of efficient generation employing combined-cycle gas turbine, geothermal and combined heat and power technologies. As one of California's largest energy providers, Calpine is the state leader in renewable and combined heat and power production. Its generation capacity is equivalent to almost 10 percent of California's peak power demand. As the state's leading investor in new power generation, Calpine has invested $5 billion since 2001 to help retire higher emitting and inefficient power plants. Today, Calpine can generate more than 5,200 megawatts to power California's homes and businesses.

Policymakers at the federal, regional and state levels are all considering a variety of actions to address the potential impact of man-made carbon dioxide (CO^2) emissions on climate change. Calpine has long been a supporter of these efforts and is committed to building clean, efficient new power plants, which will lead to the reduction of CO^2 emissions. Calpine looks forward to working with policymakers on other steps to reduce emissions within the energy industry. Voluntary programs alone may not provide the action needed to tackle this challenge. Calpine supports programs at the federal, regional and state levels that include appropriate reductions in CO^2 emissions and provide flexible, market-based solutions that will reward the transition from more carbon-intensive generation to efficient, low carbon-intensive generation and renewable power.

Summary Response to MAC Recommendations Report

As an early supporter of AB 32 – the California Global Warming Solutions Act of 2006 – Calpine supports the use of a workable, market-based program to aid in the implementation of statewide greenhouse gas emission limits and reductions. As an energy company with facilities throughout the United States, Calpine also sees the advantages and complications of designing a program for reducing California's greenhouse gas (GHG) emissions in a manner that can be fully integrated with the evolving network of national and international emission reductions systems.

Calpine commends the Market Advisory Committee (MAC) for its thorough and thoughtful Recommendations Report. The MAC Recommendations Report has done an excellent job:

- Explaining the underlying economics of why California needs an emissions cap-and-trade systems as part of its AB 32 implementation plan;
- Developing clear rationales and policy justifications for why a cap-and-trade system can help meet emission reduction targets at the lowest possible cost; and,
- Creating "guiding design principles" that honor environmental justice and community concerns, while also recognizing the need for flexibility and ease of administration for the market for emissions allowance trading.

Calpine supports many of the MAC's recommendations. The following comments address recommendations on specific sections of the draft report:

I. OVERALL PROGRAM DESIGN AND GUIDING PRINCIPLES

Calpine supports the overall program principles and the cap-and-trade design principles included in the draft report. Overall, the recommendations are well thought out and consistent with Calpine's views. Specifically, Calpine supports the following design principles for any cap-and-trade system:

- A market design focused on efficiency that recognizes and rewards technical innovation;
- Strong and enforceable emissions caps where emissions are fully verified;
- Strong monitoring and enforcement;
- Expansion of the cap and trade program to encompass as many industries as possible; and,
- Market design and environmental integrity sufficient to develop a program that can be linked with other regional, national and international programs.

Furthermore, we agree with the reports usage of evaluation criteria such as environmental integrity, implications for consumer prices, cost-effectiveness and integration opportunities with other GHG cap-and-trade systems to guide development of a specific market proposal.

II. DESIGN FEATURES FOR THE ELECTRICITY SECTOR

- **Point of Regulation – The "First Seller" Approach**

The MAC introduces the "first seller" concept into the dialogue, which offers a creative new solution to address emissions associated with imported electricity and incorporate the true costs of electricity generation. Calpine continues to review the details of "first seller" approach for regulating emissions associated with electricity delivered in California. After initial review, it appears that the "first seller" approach is a good starting point and compromise between load-based and source-based programs and offers California a way to address the "leakage" issue in the short run. However, we still have concerns regarding verifiable emissions under this approach and believe these concerns need to be addressed before moving forward.

We fully agree with the MAC that the lack of verifiable emissions data (i.e. data that is outside of the California Climate Action Registry's Power/Utility Reporting Protocol) for approximately 44% of the imported electricity into California is a critical issue that could affect the integrity of the program. California needs a system to verify emissions data for imported electricity which will avoid leakage from those emissions. Calpine is concerned that current approaches to developing fuel-content proxy mechanisms allow for "gaming" as it may provide incentives for entities to sell more unspecified power depending on the level of the proxy. As presented, the first seller approach does not resolve this issue.

Furthermore, we think the data included in the Report at page 42 must be reviewed. We note that the data presented by the California Energy Commission at the joint CPUC/CEC workshop on April 12 is slightly different. The report sites that Alvarado and Griffin "estimate that 96 percent or the unassigned power from out-of-state is gas fired and only about 4 percent is coal-fired." That information matches data sited by Alvarado at the aforementioned workshop with regard only to imports from the Southwest. Using data from the workshop, the amount of power from unspecified coal in total would be higher if one takes into account imports from the Northwest. It is also important to note that this data is historic and does not guarantee future action. If emission proxies make unspecified power emissions appear less than emissions from a coal-fired plant, then coal plants will be motivated to sell energy as unspecified power rather than contractually. This could actually increase the amount of unspecified imports and specifically imports with higher emission rates creating a net increase in emissions associated with electricity consumption.

The MAC report accurately conveys the importance of being able to link the California system with other regional, national and international programs. The ultimate market design should have sufficient integrity to link with these other programs. Resolution of the issue of the lack of verifiable emissions is critical to the success of future market linkages.

- **Allowances**

The MAC Report prefers auctions over allocation of allowances, with the three guiding principles of cost-effectiveness, fairness and simplicity. Auctioning allowances may make sense for some portion of the overall allowances for a particular industry sector, but use of allocations to offset costs is necessary to ensure that the program is capturing cost-effective technologies and does not overly burden firms in the short-run. The MAC should consider the use of a mixed allowance/auction approach with a phase-in period for the auction to minimize possible drastic economic impacts that a large-scale auction might have on affected sources in the initial phases of the program.

To the extent that direct allowance allocations are utilized, Calpine believes allowances should be distributed directly to sources using an output-based methodology.

An output-based approach distributes allowances based on the amount of electricity generated, not on the amount of fuel used or a facility's historic emissions. Calpine supports an output-based, updating, non-fuel specific allocation. This provides proper incentives for the most efficient and lowest emitting technologies to operate more thereby accomplishing the goal of reduced GHG emissions. Output-based policies send a clear signal to the marketplace that lower-carbon emitting energy resources have value. In addition, consistent with the MAC report design goal, allocations such as this rewards efficiency, recognizes and encourages early action.

In the draft report, the Committee asserts that direct allocation to generators should be avoided, but that it might make sense to allocate allowances to load-serving entities ("LSE's"). It is important for the Committee to note that in California, LSE's are also generators and compete directly with independent generators such as Calpine. Allocating allowances to LSE's but not to other generators could cause competitive inequities within state's resource procurement process. The MAC identified fairness as one of the articulated design goals for the Program, and it is critical that the market be fair amongst competitors in any particular industry. In this case, the method of issuing allowances should not result in an unfair advantage to independently owned utility ("IOU") generation. As it is very likely that California's "hybrid" electricity market (i.e. competing IOU and independent generation ownership) will be sustained for at least the intermediate future, Calpine believes that the suggestion to allocate to LSE's but not generators should be deleted from the report.

Conclusion

Calpine appreciates the opportunity to provide these comments on the draft Recommendations Report and we thank the Committee for its thoughtful review. First and foremost, we applaud the reports commitment to fairness amongst communities and industries and encourage the MAC to revisit its suggestion regarding direct allocations to LSE's but not generators.

If you have any comments or questions on this or any of Calpine's climate change policies, please contact me at (925) 479-6640 or via email at kowalewskia@calpine.com.

Sincerely,

CALPINE CORPORATION

AVIS KOWALEWSKI
VICE PRESIDENT, WESTERN REGULATORY AFFAIRS

cc: Dale Bryk
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